

#4.

Hawaiian Explorations.

D<sup>r</sup> 3874 - D<sup>r</sup> 3886.

Hy 4096 - Hy 4130.

April 12-17, 1902.

2500	
2600	
2700	
2800	4096
2900	
3000	3874
3100	
3200	
3300	
3400	
3500	
3600	
3700	
3800	
3900	
4000	

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
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1000				

REMARKS:

No. 4096 Date 12 Apr 02  
 Trawl Machine Reel.  
 Turns 41 Cor. 2 Depth 40 fms  
 Shot or lead 35 ft  
 Bottom 8 + bkt \$6.  
 Bottom temperature 74.4  
 No. of thermometer 98233 Cor. +0.1  
 Corrected temperature 74.5  
 Air 84 Surface 77 Drift  
 Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
9:20.00	22.30	0		
20.30	22.00	400		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
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		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Mokuhoonipu At., Molokai Channel  
Lat 11° 30' E., true 18 9/10 miles

~~Algo.~~  
~~Stein~~

			2500	
			2600	HO # 1368.
			2700	
			2800	
			2900	
			3000	
			3100	
			3200	
			3300	
			3400	
			3500	
			3600	
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			3900	
			4000	

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
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REMARKS:

*Stewart* C. L. P. 497  
No. 1097 Date 12 Apr. 02  
*Shaded* Machine Reel.

Turns 35 Cor. + 1  
Shot or lead 35 #

Depth 36 m

Bottom Sand P.

Bottom temperature 74°

No. of thermometer 982 33 Cor. + 0.1

Corrected temperature 74.1

Air 84 Surface 77 Drift

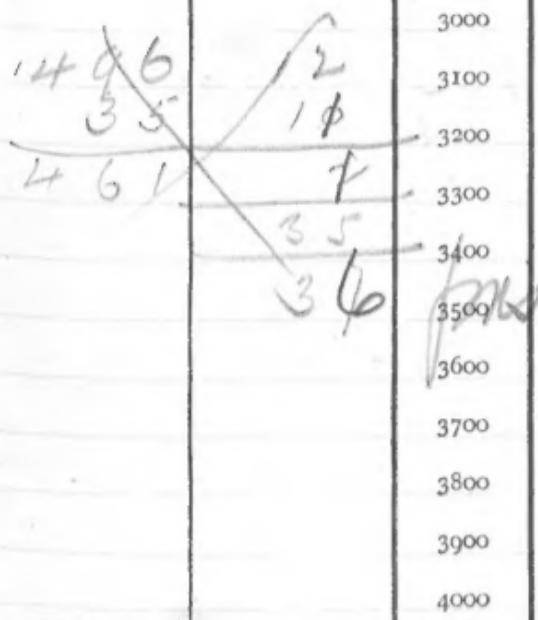
Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
9; 32.30	35:00	35°		
33.00	9; 34.30	—		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
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		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Mokuhooniki Rk., Mokhai Channel

N 14° E, true 19 1/10 miles

SL  
HCO.  
S.M.



HO # 1368.

SERIAL TEMPERATURES.

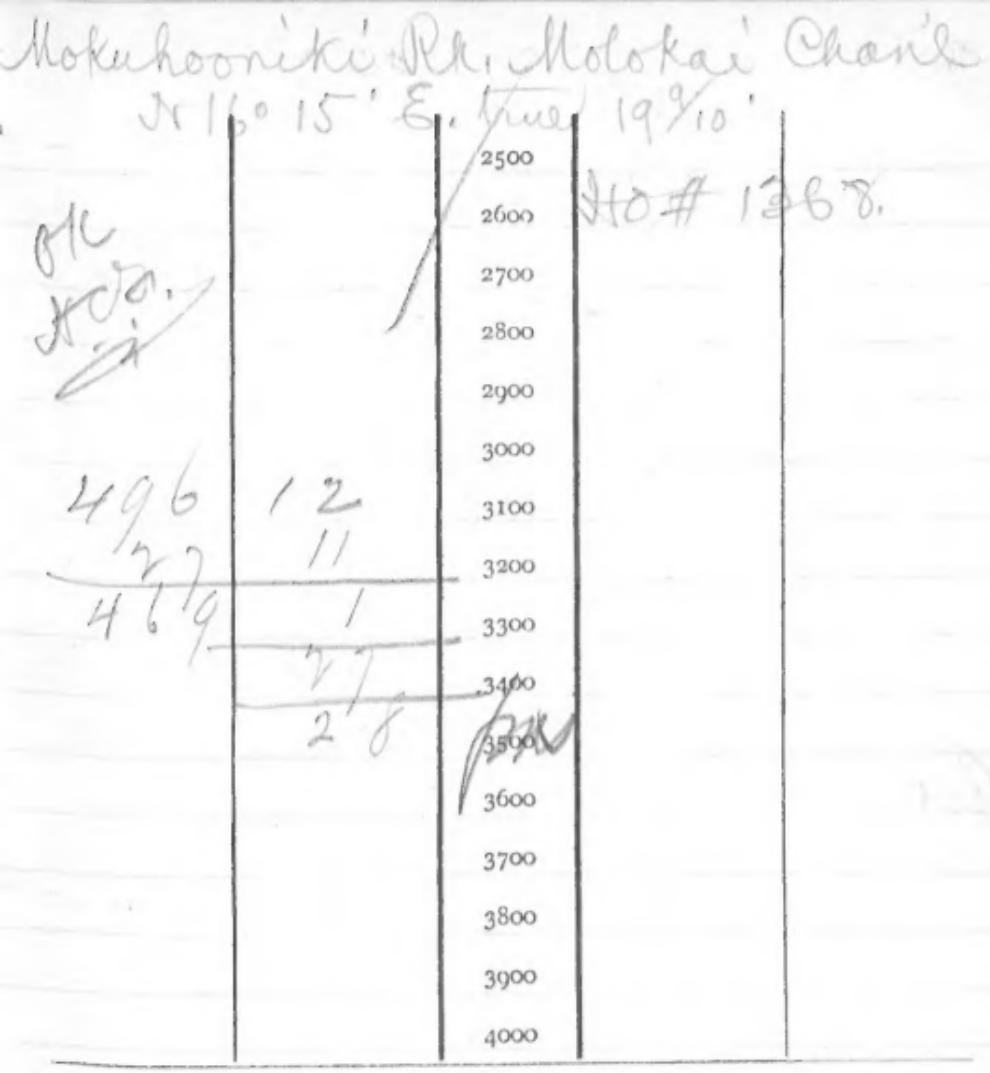
DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
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REMARKS:

Sounding

No. 4098 Date 12 Apr. 02  
 Sander Machine Reel.  
 Turns 27 Cor. + 1 Depth 28 fms  
 Shot or lead 35 ft  
 Bottom T,  
 Bottom temperature 74.2  
 No. of thermometer 98133 Cor. +0.1  
 Corrected temperature 74.8  
 Air 84 Surface 77 Drift  
 Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
9:46.40	9:49.00	0		
47.05	48.30	27		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
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		2300		
		2400		



SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No. Hogg Date 12 Apr 1902

Machine. - Reel. 15 fms.

Turns - Cor. + Depth 14 fm.

Shot or lead Hand

Bottom hard

Bottom temperature

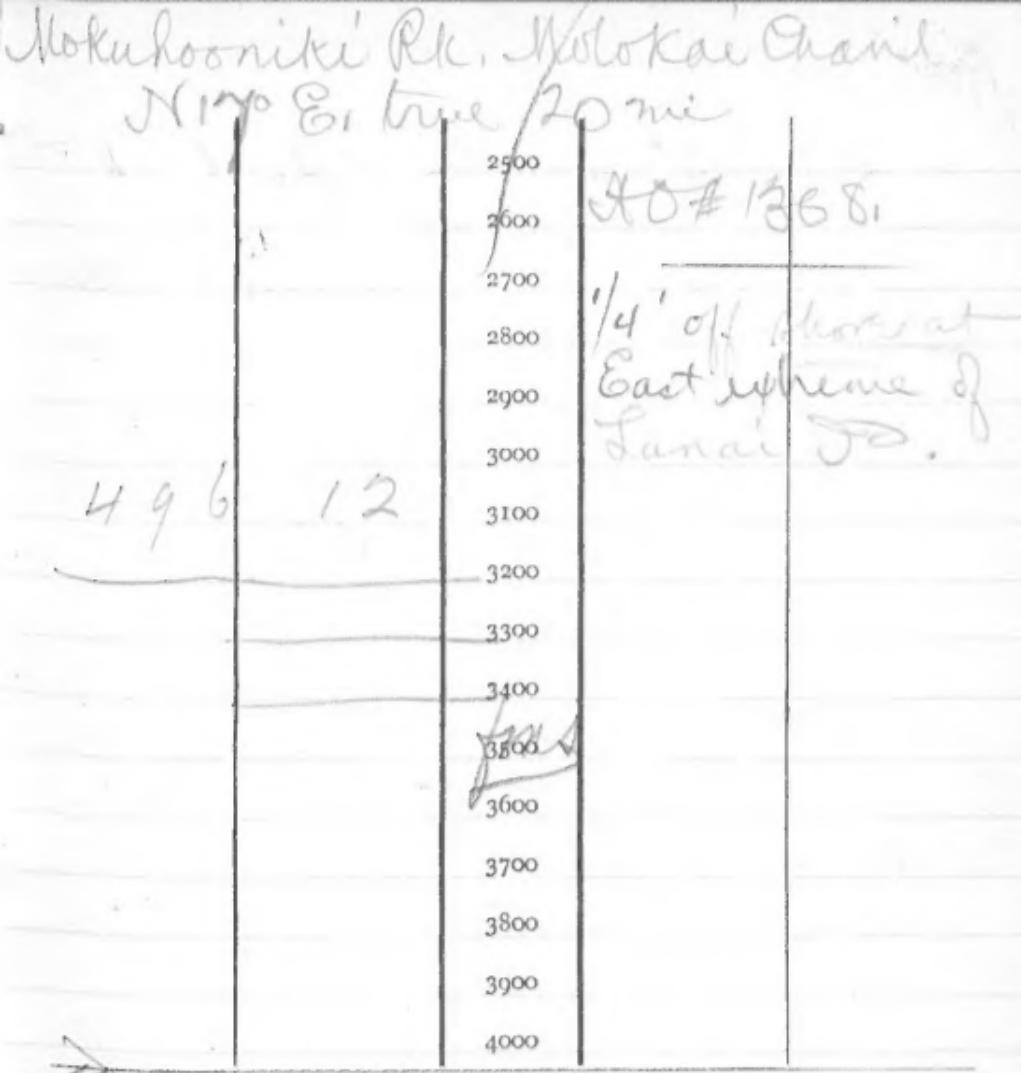
No. of thermometer 1 Cor.

Corrected temperature

Air 84 Surface 77 Drift

Trawl or dredge

SOUNDING WIRE. DOWN.	UP.	TURNS.	DREDGE ROPE.	
			DOWN.	UP.
		0		
		100		
		200		
		300		
		400		
		500		
		600		
		700		
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		900		
		1000		
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		2200		
		2300		
		2400		



SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
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500				
600				
700				
800				
900				
1000				

REMARKS:

No. 2674 Date 12 Apr 1902

Sample Machine. Reel.

Turns 20 Cor. + / Depth 41 W

Shot or lead 20 "

Bottom 10 fms V. Sh.

Bottom temperature 75 2

No. of thermometer 783 3 Cor. +0.1

Corrected temperature 75.3 (75.2)

Air 51 Surface 6 Drift

Trawl or dredge 6 Trawl Woods

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
10:30.20	31.50	0		
		100		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
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3800  
3900  
4000

15

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Results nil - Sust sent over by mistake, before being cleaned.

97.

No. 1

Date

Machine. Reel.

Turns 27 Cor. + Depth 28 fms

Shot or lead 35 P.

Bottom

Bottom temperature 74.4

No. of thermometer 182 33 Cor. +0.1

Corrected temperature 74.5

Air 81 Surface 76 Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
101.521.20	51.10	0		
50	14.10	100		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
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 3100  
 3200  
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 3400  
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 3600  
 3700  
 3800  
 3900  
 4000

28

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No. 24101 - 34 Date

H. P. & A. Machine. — Recd.

Turns 15 Cor. + 1 Depth 16 7114

Shot or lead

Bottom 14

Bottom temperature

No. of thermometer 902 95 Cor. 10.1

Corrected temperature 75.5

Air 79 Surface 77 Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
		0 100		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
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		2400		

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 3800  
 3900  
 4000

1/2

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

507.

No.

Date

Machine. Reel.

Turns 37 Cor. + 1 Depth 33 fms.

Shot or lead 25

Bottom fine silt 2.

Bottom temperature 73.4

No. of thermometer 98.7 Cor. + 1

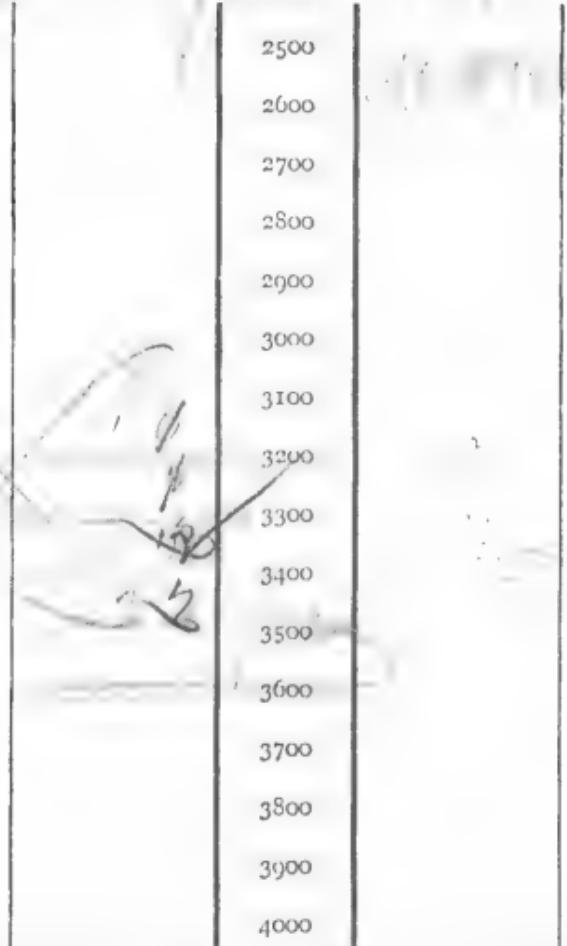
Corrected temperature 73.5

Air 79. Surface Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
		0		
		100		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
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		1400		
		1500		
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		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

N



SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No. 4402 Date 12 April, '03.

Tanner Machine Recl.

Turns 32 Cor. + / Depth 33 fms.

Shoot of lead 2

Bottom Co. rock

Bottom temperature 73.5°

No. of thermometer 9 Cor. + 1°

Corrected temperature 74.5°

Air 78. Surface 77. Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
1000	1000	0		
0	0	100		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
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		2200		
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3400  
3500  
3600  
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3800  
3900  
4000

4796 12  
22 11  
15.11 1  
32 32  
32.5

#### SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No. Dr. 3875. date 12 Am. 03.

Turns or Machine. Reel.

Turns 62 Cor. + 3 Depth 65 fms.

Shot or lead 26 lbs.

Bottom fine sand.

Bottom temperature 70.8

No. of thermometer 98223 Cor. 0

Corrected temperature 70.8

Air 78. Surface 77. Drift 1.1

Trawl or dredge 9-12 fms.

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
11 22.00	13.00	0	11 .00	1. 02.00
11 41.00	13.00	500	85.30	57.00
		200		12.57.30
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
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		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

noonite ray  
N. 141° 36' S. true 17° 11'

of  
8.  
kin

		2500	116.7 100.0
		2600	
		2700	
		2800	
		2900	
		3000	
		3100	
		3200	
		3300	
		3400	
		3500	
406.	12.	3600	
62	9	3700	
4211	8	3800	
	8.5 fm	3900	
		4000	

#### SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

Catch:

Great quantities of algae and broken shells; many small crabs; *Alpheus*; shrimp; large broken urchin; 3 other regular urchins; 1 Clypeasterid; large 10-ray starfish; 2 or 3 *Pentoceras*-like starfishes; 1 small starfish; 2 Kudo's serpent stars; 2 or 3 Kudo's holothurians;

oliva-like gastropods and several others; lamellibranchs; 2 Kudo coral; many ascidians; planarian, and several other worms; 1 nudibranch; apogon; eithorichthys; pomacentrus; synodus.

No. 4104. Date 12 Dec. 02.

Abron. Machin. Reel.

Turns 33 Cor. + 11 Depth 34 fms.

Shot or lead 26 lbs.

Bottom 2. G.

Bottom temperature 53.6

No. of thermometer 98 233. Cor. + 0.1

Corrected temperature 73.2

Air 78 Surface 77 Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
1. 08.00	1. 10.10	0		
1. 08.25	1. 09.30	400		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
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		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

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3800  
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4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No. 4105. By Date 12 Feb.

Machine. Reel.

Turns 26 Cor. + Depth

Shot or lead 6 lbs.

Bottom P.

Bottom temperature 74.3

No. of thermometer 98233 Cor. 10.1

Corrected temperature 74.4

Air 70 Surface 71 Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
		0		
		100		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

2500
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3600
3700
3800
3900
4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

P.L.

No. 54. 1100. Date 13 Oct.

Trawler Machine. Reel.

Turns 30 Cor. +

Depth 31 fms

Shot or lead 26 lbs.

Bottom P.

Bottom temperature 75.

No. of thermometer 98233. Cor. +0.1

Corrected temperature 75.1

Air 78. Surface 77 Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
		0		
		200		
		400		
		600		
		800		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

noonuke Idc.

37° E., true

125° F.

2500

2600

2700

2800

2900

3000

3100

3200

3300

3400

3500

3600

3700

3800

3900

4000

N.W.

G/10° W.

!

N.W. sec

C.R.  
J.S.

496.

30

12.

"

466

3'

31, fnd

Piling 61.5

No.

3876

Date

14 2.

Machine.

Reel.

Turns 25 Cor. + 3

Depth 25 fms

Shot or lead 26 lbs

Bottom S. D.

Bottom temperature 73.00

No. of thermometer 98233 Cor.

Corrected temperature

Air 73 Surface 75 Drift 1/16

Trawl or dredge 9 ft. Column with option

## SOUNDING WIRE.

## TURNS.

## DREDGE ROPE.

## UP.

DOWN.	UP.	TURNS.	DOWN.	UP.
7.27.20	31.5	0	7.35.10	7.30
	30.65	100	69.30	7.44.10
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

## Light. Maui.

45° 51' W.

On 1/2/73

		2500	
		2600	H.O. # 1367
		2700	
		2800	
		2900	
		3000	
		3100	
		3200	
		3300	
		3400	
		3500	
		3600	
		3700	
		3800	
		3900	
		4000	
4600	246		
25	243		
4575	3		
	3		
	3		
	3		

## SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500	Catch - Great food of green			
600	articulated corallines; several			
700	kinds sponges; many annelids of			
800	sev'l sps; nemerteans; sev'l sps.			
900	holothurians; few starfish, 3 sps;			
1000	sev'l urchins, 2 sps; several			
	lamellibranchs and gastropods;			

## REMARKS:

foliaceous coral; 8 sps. fishes; many kinds crabs; several stomatopods; alpheus in sponge cavities; 2 sps. shrimps; several anemones; 2 sps. nudibranchs.

No. 4107 Hy Date 1st Sept., 1902  
 Machine 4 Reel No. 91  
 Turns Cor. + 4 Depth 43 fms  
 Shot or lead 16.4  
 Bottom 8 m. 73.9  
 Bottom temperature 73.9  
 No. of thermometer 1 Cor. + .1  
 Corrected temperature 74.8  
 Air 71 Surface 71 Drift

## Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
59.40	8:02:10	29		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
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		1900		
		2000		
		2100		
		2200		
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		2400		

		2500	
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		2700	
		2800	
		2900	
		3000	
		3100	
		3200	
		3300	
		3400	
		3500	
		3600	
		3700	
		3800	
		3900	
		4000	

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
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300				
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500				
600				
700				
800				
900				
1000				

REMARKS:

No. 2899 D Date 4 Nov 1902

W.M. M. Machine. — Reel.

Turns 24 Cor. + Depth 25 fms

Shot or lead

26 ft

Bottom

Co. R.

73-9

Bottom temperature

73-9

No. of thermometer

Cor. + 0.1

Corrected temperature

74°

Air 76

Surface

Drift

Fwd or dredge

6

Variety of plants

SOUNDING WIRE.

TURNS.

DREDGE ROPE.

DOWN.

UP.

DOWN.

UP.

22

100

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

481

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

## SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100	60	100	0	60
200	58	100	-1	57
300	56	100	-2	54
400	54	100	-3	51
500	52	100	-4	48
600	50	100	-5	45
700	48	100	-6	42
800	46	100	-7	39
900	44	100	-8	36
1000				

## REMARKS:

Lost everything - no catch.

No. 4108 Hy Date 1/17/11  
Machine. Reel.

Turns 30 Cor. + / Depth 11 m

Shot or lead 26

Bottom 60

Bottom temperature 72° 9'

No. of thermometer 982 23 Cor. + 0.1

Corrected temperature 73°

Air 76 Surface 77 Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
9.12.9	12.6	0		
13.00	12.50	30		
		100		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

496 17  
2.0  
1466

2500  
2600  
2700  
2800  
2900  
3000  
3100  
3200  
3300  
3400  
3500  
3600  
3700  
3800  
3900  
4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

P 2769.

No. 4150 Date 1/1 11' 10" 100  
 Sigs. bair Machine. / Reel. N. 109  
 Turns 410 Cor. + Depth 44 fms  
 Shot or lead 36 G.  
 Bottom 60  
 Bottom temperature 72<sup>±</sup>  
 No. of thermometer 98.3 Cor.  
 Corrected temperature 72.5  
 Air 76 Surface 74 Drift  
 Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
100	10.10	0		
200		100		
300				
400				
500				
600				
700				
800				
900				
1000				
1100				
1200				
1300				
1400				
1500				
1600				
1700				
1800				
1900				
2000				
2100				
2200				
2300				
2400				

4600	446	2500
		2600
		2700
		2800
		2900
		3000
		3100
		3200
		3300
		3400
		3500
		3600
		3700
		3800
		3900
		4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

8000  
SOUNDING  
P.L. 71°

No. 4110 Date 11. 1. 1902  
Machine. Reel. 1100  
Turns 62 Cor. + 6 Depth 68 fms  
Shot or lead 3  
Bottom ~~500 fms~~ 71<sup>3</sup>  
Bottom temperature 71<sup>3</sup>  
No. of thermometer 98233 Cor. 0  
Corrected temperature 71<sup>3</sup>  
Air 87 Surface 77 Drift  
Trawl or dredge

SOUNDING WIRE.		TURNS. $\frac{62}{100}$	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
101.01.10	101.00.30	200		
01.50	03.30	300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

4600  
62

241  
2

4538

62  
6?

6?

#### SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No. 4111 Hy. Date 14 Apr. 07

Classifer Machine. Recl. N.Y.

Turns Cor. + Depth 69 fms

Shot or lead 3/4 lb.

Bottom fine sand.

Bottom temperature 71

No. of thermometer 982 33 Cor. 0

Corrected temperature 71

Air 87 Surface 77 Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
70.24.30	1027.40	630		
70.25.30	1027.0	6300		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

6.2  
7.0

#### SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No. 4417 Date 1902  
 Machine Reel.  
 Turns 62 Cor. + 6 Depth 68 fms  
 Shot or lead 31  
 Bottom 61° 69°  
 Bottom temperature 69°  
 No. of thermometer 33 Cor. 0  
 Corrected temperature 69°  
 Air 76 Surface 76 Drift  
 Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
14.70	10.20	0		
15.15	11.45	62		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

W.C.C.

No.

Oil  
K.W.

14500 24.6

2500  
2600  
2700  
2800  
2900  
3000  
3100  
3200  
3300  
3400  
3500  
3600  
3700  
3800  
3900  
4000

## SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No. 4113 54 Date 14 Apr 1902

Dibble Machine Reel No. 0-1  
 Turns 68 Cor. + Depth 75 fms  
 Shot or lead 26  
 Bottom free 70°  
 Bottom temperature 70°  
 No. of thermometer 98233 Cor. 0  
 Corrected temperature 70°  
 Air 76 Surface 76 Drift  
 Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
11.12.1	11.15.20	68		
13.20	14.40			
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

2500  
2600  
2700  
2800  
2900  
3000  
3100  
3200  
3300  
3400  
3500  
3600  
3700  
3800  
3900  
4000

9-6 1268.

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No. 11114 May Date 14 Op. 1902

Magninc. Reel.

Turns Cor. + 6 Depth 64 f.

Shot or lead 5 lb

Bottom 76°

Bottom temperature 46.5

No. of thermometer 782.32 Cor. 0

Corrected temperature 66.5

Air 76 Surface 76 Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
1144.15	1148.00	0		
		100		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

2500  
2600  
2700  
2800  
2900  
3000  
3100  
3200  
3300  
3400  
3500  
3600  
3700  
3800  
3900  
4000

24.6  
28.0

30.0

31.0

32.0

33.0

34.0

35.0

36.0

37.0

38.0

39.0

40.0

41.0

42.0

43.0

44.0

45.0

46.0

47.0

48.0

49.0

50.0

51.0

52.0

53.0

54.0

55.0

56.0

57.0

58.0

59.0

60.0

61.0

62.0

63.0

64.0

65.0

66.0

67.0

68.0

69.0

70.0

71.0

72.0

73.0

74.0

75.0

76.0

77.0

78.0

79.0

80.0

81.0

82.0

83.0

84.0

85.0

86.0

87.0

88.0

89.0

90.0

91.0

92.0

93.0

94.0

95.0

96.0

97.0

98.0

99.0

100.0

101.0

102.0

103.0

104.0

105.0

106.0

107.0

108.0

109.0

110.0

111.0

112.0

113.0

114.0

115.0

116.0

117.0

118.0

119.0

120.0

121.0

122.0

123.0

124.0

125.0

126.0

127.0

128.0

129.0

130.0

131.0

132.0

133.0

134.0

135.0

136.0

137.0

138.0

139.0

140.0

141.0

142.0

143.0

144.0

145.0

146.0

147.0

148.0

149.0

150.0

151.0

152.0

153.0

154.0

155.0

156.0

157.0

158.0

159.0

160.0

161.0

162.0

163.0

164.0

165.0

166.0

167.0

168.0

169.0

170.0

171.0

172.0

173.0

174.0

175.0

176.0

177.0

178.0

179.0

180.0

181.0

182.0

183.0

184.0

185.0

186.0

187.0

188.0

189.0

190.0

191.0

192.0

193.0

194.0

195.0

196.0

197.0

198.0

199.0

200.0

201.0

202.0

203.0

204.0

205.0

206.0

207.0

208.0

209.0

210.0

211.0

212.0

213.0

214.0

215.0

216.0

217.0

218.0

219.0

220.0

221.0

222.0

223.0

224.0

225.0

226.0

227.0

228.0

229.0

230.0

231.0

232.0

233.0

234.0

235.0

236.0

237.0

238.0

239.0

240.0

241.0

242.0

243.0

244.0

245.0

246.0

247.0

248.0

249.0

250.0

251.0

252.0

253.0

254.0

255.0

256.0

257.0

258.0

259.0

260.0

261.0

262.0

263.0

264.0

265.0

266.0

267.0

268.0

269.0

270.0

271.0

272.0

273.0

274.0

275.0

276.0

277.0

278.0

279.0

280.0

281.0

282.0

283.0

284.0

285.0

286.0

287.0

288.0

289.0

290.0

291.0

292.0

293.0

294.0

295.0

296.0

297.0

298.0

299.0

300.0

301.0

302.0

303.0

304.0

305.0

306.0

307.0

308.0

309.0

310.0

311.0

312.0

313.0

314.0

315.0

316.0

317.0

318.0

319.0

320.0

321.0

322.0

323.0

324.0

325.0

326.0

327.0

328.0

329.0

8<sup>d</sup> & 9<sup>d</sup> Laid off N.E. of Kukutau.

No. 44. 11/15. Date

Sister Machine // Reel. No.

Turns 163 Cor. + 16 Depth 179 fms.

Shot or lead 36 c.

Bottom fine s. co.

Bottom temperature 53.9

No. of thermometer 98233. Cor. - 0.3

Corrected temperature 53.6

Air 75 Surface % Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
11.17.	11.20.	0		
		100		
12.10.	12.21.	200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

S. 17

		2500	
		2600	
		2700	
		2800	
		2900	
		3000	
		3100	
		3200	
		3300	
		3400	
		3500	
1170		3600	
1166		3700	
11612		3800	
		3900	
		4000	

## SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

170. S. -

No. Hy. 4116. Date 1/21/00.  
 Ligebo Machine Reel. Show  
 Turns 753 Cor. + 25 Depth 278 fms.  
 Shot or lead 35 lbs.  
 Bottom 2. M.  
 Bottom temperature 45.2  
 No. of thermometer 97233. Cor. 0  
 Corrected temperature 45.2  
 Air 70. Surface 7. Drift

## Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE	ROPE.
DOWN.	UP.		DOWN.	UP.
		0		
		100		
		200		
12	12.57.12	300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

S. 7715

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

## SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No. 5117 Date 14 Apr. '02.  
 2500 Machine Reel. 71200  
 Turns 334 Cor. + 32 Depth 36' fms.  
 Shot or lead 35 lbs.  
 Bottom 45° -  
 Bottom temperature 45° -  
 No. of thermometer 98233. Cor. 0  
 Corrected temperature 43° -  
 Air 79. Surface Drift  
Trawl or dredge

P.M.	SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
	DOWN.	UP.		DOWN.	UP.
	57.15	1.21.00	0		
	58.10	35.00	100		
	59.25	54.00	200		
		37.00	300		
	60.71 m	1.22.00	400		
			500		
			600		
			700		
			800		
			900		
			1000		
			1100		
			1200		
			1300		
			1400		
			1500		
			1600		
			1700		
			1800		
			1900		
			2000		
			2100		
			2200		
			2300		
			2400		

		2500		
		2600		
		2700		
		2800		
		2900		
		3000		
		3100		
		3200		
		3300		
		3400		
		3500		
		3600		
4600	246	3700		
400	216	3800		
426.5	332	3900		
	334			
	367	4000		

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No. H. 4118, Date 14 April, 1881.

~~Machine~~ Machine. Reel. Am.

Turns 336 Cor. + 34 Depth 372 fms.

Shot or lead 35 lbs.

Bottom 6. N.

Bottom temperature 42.2

No. of thermometer 98.322, Cor. 0

Corrected temperature 42.3

Air 81 Surface 77 Drift

~~Trawl or dredge~~

Fm. SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
2, 02.15	2. 11.~0	0		
03. 20	10. 10	100		
04. 05	10. 10	200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Holoiki' At., N 86° 36' E. 2.28 fm.

		2500	
		2600	July 1900
		2700	
		2800	
		2900	
		3000	
		3100	
		3200	
		3300	
		3400	
		3500	
		3600	
600.	2 1/2	3700	
700.	2 1/2	3800	
800.	2 1/2		
900.	3 3/4	3900	
1000.	3 7/8	4000	

#### SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No. 24 Date

Cirshoo Machine. 1/ Reel.

Turns 388. Cor. + 39 Depth 427 fms.

Shot or lead - 25 lbs.

Bottom fair S. For.

Bottom temperature 41.

No. of thermometer 98333. Cor. 0

Corrected temperature 41.

Air 81 Surface 75 Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
		0		
		100		
		200		
		300		
	0.43.45	400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

	2500
	2600
	2700
	2800
	2900
	3000
	3100
	3200
	3300
	3400
38°	3500
24°	3600
74°	3700
	3800
	3900
	4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No. Hy. 4120. / Date 14, April  
 Sinker Machine. / Reel. 4  
 Turns 100 Cor. + 99 Depth 135  
 Shot or lead 35.6  
 Bottom fine s. Colb.  
 Bottom temperature 35.8  
 No. of thermometer 98233. Cor. +0.1  
 Corrected temperature 35.9  
 Air 81 Surface 80 Drift  
 Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
3. 12. 30	3.30	0		
	33	100		
	33	200		
	33	300		
	33	400		
	33	500		
	33	600		
	31	700		
	30	800		
	29	900		
	28	1000		
3. 26. 00	3.27. 30	1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

	2500	
	2600	
	2700	
	2800	
	2900	
	3000	
	3100	
	3200	
	3300	
	3400	
	3500	
41.50 - 25.	3600	
1036	3700	
35.61	3800	
	3900	
	4000	

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No. 119412 Date 11/17/1911  
 Sigsbee Machine Recl.  
 Turns 70 Cor. + 122 Depth 1494 ft.  
 Shot or lead 60 lbs.  
 Bottom ~~clearness~~ associated thin air bubbles  
 Bottom temperature 35.1  
 No. of thermometer Cor. + 0.1  
 Corrected temperature 35.2  
 Air 75 Surface 77 Drift

SOUNDING WIRE

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
A-21.00	54.00	0	5.01.20	32.00
34.00	54.00	100	04. =	28.20
24.00	53.50	200	06. =	25.10
30.00	51.10	300	09.15	22.15
55.00	49.70	400	11.50	19.20
24.00	48.00	500	12.00	18.00
24.00	47.00	600	12.00	17.00
24.00	46.00	700	12.00	16. =
33.00	46.00	800	12.00	16.00
24.00	45.00	900	12.00	16. =
34.00	44.00	1000	12.00	15.20
24.00	42.00	1100	12.00	14.00
24.00	41.00	1200	12.00	15.45
36.00	40.00	1300	12.00	15.00
24.10	40.00	1350	12.00	15.45
		1400	12.00	
		1500	12.00	48.45
		1600	12.00	45.20
		1700	12.00	42.50
		1800	12.00	38.25
		1900	12.10	35.45
		2000	12.00	30.55
		2100	12.00	28.10
		2200	12.00	25.30
		2300	12.10	18. =
		2400	12.30	6.13.20

				08.25
		2500	66	
		2600	36.20	
		2700	35	
		2800	34	
		2900	33	
		3000	32	
		3100	31	
		3200	30	
		3300	29	
		3400	28	
		3500	27	
		3600	26	
		3700	25	
		3800	24	
		3900	23	
		4000	22	
1350	122			
3200	124			
1350	125			
1474				

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Dive 1000 fms			
50	17 fms			
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Surface 1000 fms  
" " 1000 fms "

No. N 2 1878 Date

Machine.

Reel.

Turns Cor. + Depth

Shot or lead

Bottom

Bottom temperature

No. of thermometer

Corrected temperature

Air 74

Surface 77.

Cor.

Drift

Trawl or dredge

## SOUNDING WIRE.

## TURN.

## DREDGE ROPE.

DOWN.

UP.

DOWN.

UP.

100

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

2500

2600

2700

2800

2900

3000

3100

3200

3300

3400

3500

3600

3700

3800

3900

4000

4100

4200

4300

4400

4500

4600

4700

4800

4900

5000

5100

5200

5300

5400

5500

5600

5700

5800

5900

6000

6100

6200

6300

6400

6500

6600

6700

6800

6900

7000

7100

7200

7300

7400

7500

7600

7700

7800

7900

8000

8100

8200

8300

8400

8500

8600

8700

8800

8900

9000

9100

9200

9300

9400

9500

9600

9700

9800

9900

10000

10100

10200

10300

10400

10500

10600

10700

10800

10900

11000

11100

11200

11300

11400

11500

11600

11700

11800

11900

12000

12100

12200

12300

12400

12500

12600

12700

12800

12900

13000

13100

13200

13300

13400

13500

13600

13700

13800

13900

14000

14100

14200

14300

14400

14500

14600

14700

14800

14900

15000

15100

15200

15300

15400

15500

15600

15700

15800

15900

16000

16100

16200

16300

16400

16500

16600

16700

16800

16900

17000

17100

17200

17300

17400

17500

17600

17700

17800

17900

18000

18100

18200

18300

18400

18500

18600

18700

18800

18900

19000

19100

19200

19300

19400

19500

19600

19700

19800

19900

20000

20100

20200

20300

20400

20500

20600

20700

20800

20900

21000

21100

21200

21300

21400

21500

21600

21700

21800

21900

22000

22100

22200

22300

22400

22500

22600

22700

22800

22900

23000

23100

23200

23300

23400

23500

23600

23700

23800

23900

24000

24100

24200

24300

24400

24500

24600

24700

24800

24900

25000

25100

25200

25300

25400

25500

25600

25700

25800

25900

26000

26100

26200

26300

26400

26500

26600

26700

26800

26900

27000

27100

27200

27300

27400

27500

27600

27700

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27900

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28800

28900

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29100

29200

29300

29400

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29600

29700

29800

29900

30000

30100

30200

30300

30400

30500

30600

30700

30800

30900

31000

31100

31200

31300

31400

31500

31600

31700

31800

31900

32000

32100

32200

32300

32400

32500

32600

32700

32800

32900

33000

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	54.5	1		
50	54.5	1		
100	54.5	1		
200	54.5	1		
300	54.5	1		
400	54.5	1		
500				
600				
700	54.5	1		
800				
900				
1000				

REMARKS:

Surf temp at 7:45 AM  
 " in 7:59 ) 16  
 " 8:01 ) 10  
 " 8:11 ) 11  
 " 8:16 ) 11  
 " 8:23 ) 11  
 " 8:25 ) 31

No. 1007 Date

Sinker Machine. Reel. 111

Turns 2031 Cor. 170 Depth 2201 fm

Shot or lead

Bottom

Bottom temperature

No. of thermometer 4 Cor. + 0.1

Corrected temperature 35.1

Air 75 Surface 76. Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
30.0		0		
29.0		100		
28.0		200		
27.0		300		
26.0		400		
25.0	20.2	500		
24.0	20.1	600		
23.0	20.0	700		
22.0	20.0	800		
21.0	20.05	900		
20.0	20.00	1000		
19.0	21.0	1100		
18.0	21.0	1200		
17.0	21.05	1300		
16.0	20.05	1400		
15.0	18.0	1500		
14.0	17.0	1600		
13.0	16.00	1700		
12.0	15.0	1800		
11.0	12.15	1900		
10.0	10.00	2000		
9.0	10.00	2000	2100	
		2200		
		2300		
		2400		

2500  
2600  
2700  
2800  
2900  
3000  
3100  
3200  
3300  
3400  
3500  
3600  
3700  
3800  
3900  
4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No. 774123 Date 15/1/11

Machine Reel  
Turns Cor. + 136 Depth 641

Shot or lead

Bottom 35°

Bottom temperature

No. of thermometer 98233. Cor. +0.1

Corrected temperature 35.1

Air 74 Surface 76 Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
	24.20	"		
	24.15	100		
	24.10	200		
	24.05	300		
51.40	19.50	400		
51.35	18.30	500		
51.40	17.30	600		
51.35	15.40	700		
51.30	14.40	800		
51.25	13.30	900		
51.20	12.20	1000		
51.15	11.15	1100		
8.00.30	10.05	1200		
01.40	18.50	1300		
01.35	07.55	1400		
04.20	8.06.35	1500		
04.30	8.06 =	1505		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

50°/11

2500  
2600  
2700  
2800  
2900  
3000  
3100  
3200  
3300  
3400  
3500  
3600  
3700  
3800  
3900  
4000

1505  
3095

110  
132  
1505

1641  
SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

107.

Card No. 86

No. 5

3177 Date Aug 15 02,

Machine. T Reel. 7159

Turns 840 Cor. + 83

Depth 723 m.

Shot or lead

Bottom

Slosh R

Bottom temperature

No. of thermometer 75 Cor.

Corrected temperature

37.5 Air 76 Surface 77 Drift 1.00

Trawl or dredge 5½' Benthic, 1100 m. dredge

## SOUNDING WIRE.

## TURNS.

## DREDGE ROPE.

## UP.

DOWN.

UP.

DOWN.	UP.	TURNS.	DOWN.	UP.
27.00	47.00	0	37.50	2.00
33.00	43.00	100	10.00	2.00
37.00	47.00	200	11.00	2.00
39.00	49.00	300	0.00	2.00
41.00	49.00	400	11.00	2.00
37.00	47.00	500	1.00	2.00
33.00	40.00	600	19.10	5.00
37.00	39.00	700	21.30	5.00
37.00	38.00	800	24	5.00
35.40	37.00	900	27.00	4.00
		1000	30.50	4.00
		1100	34=	4.00
		1200	37.20	2.00
		1300	37.5	2
		1400	40.15	17.30
		1500	47.00	1.00
		1600	52.60	12.01.10
		1700	55=	44.30
		1800	11.02.20	11.26 10
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

(W.M.  
J. J.

		2500	
		2600	
		2700	
		2800	
		2900	
		3000	
		3100	trawl lost;
	1/2 peck foraminiferal rock;	3200	
2 kinds sponges;		3300	ophiuran;
urchins; 2 kinds		3400	gorgonian;
bunched corals		3500	
		3600	
460		3700	
810	163	3800	
375	7.3	3900	
	940	4000	
	923		

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Cut out bad places			
50	in dredge			
100	183			
200	183		at 300 fms.	
300	Cold surface			
400	Cut out about 6 fm			
500	all together			
600				
700				
800				
900				
1000				

REMARKS:

To 11°, used a 1525 m. wire, under  
3,500 fms., 16x100  
sleek or drift deck, strong  
winds, in water 1830 fms.  
Buck stranded at 3:57 PM.

No. 1164 Date 1902  
 Machine Reel.  
 Turns Cor. Depth 1051  
 Shot or lead  
 Bottom  
 Bottom temperature  
 No. of thermometer 98.5 Cor.  
 Corrected temperature 36.5  
 Air 81 Surface 76 Drift  
 Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
1.50	1.41.10	0		
2.50		100		
3.50		200		
4.50		300		
5.50		400		
6.50		500		
7.50		600		
8.50		700		
9.50		800		
10.50		900		
11.50	1.40.10	1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

		2500		
		2600		
		2700		
		2800		
		2900		
		3000		
		3100		
		3200		
		3300		
		3400		
		3500		
		3600		
		3700		
		3800		
		3900		
		4000		
4600	246			
975	5			
3614	1			
	177			

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No. 1178 Date, 16 " 12 Am 1883  
 Machine, Reel. 100  
 Turns 600 Cor. + 6 Depth  
 Shot or lead 10  
 Bottom 565.03 38.9  
 Bottom temperature 98.5° Cor. + 0.1  
 No. of thermometer 98.5° Cor. + 0.1  
 Corrected temperature 39.0  
 Air 81 Surface 77 Drift  
 ✓ Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
42		0		
120		100		
240		200		
360		300		
480		400		
600		500		
720		600		
840		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

2500  
 2600  
 2700  
 2800  
 2900  
 3000  
 3100  
 3200  
 3300  
 3400  
 3500  
 3600  
 3700  
 3800  
 3900  
 4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

P. 29 46. -

No. 4176 Date 11/12  
Linen Machine Recl.

Turns 332 Cor. + 33 Depth 365 fms.

Shot or lead 35 lbs.

Bottom 50.0°.

Bottom temperature 41°.

No. of thermometer 40255 Cor. 0

Corrected temperature 42

Air 83 Surface Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
		0		
		100		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

JAN 23, 1901

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

## SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

P.D. = 51.

No. 41351 Date 15 Sep. '02.

Sitzsack Machine 1. Recl. Kn.

Turns 382 Cor. + 38 Depth 620 fms

Shot or lead 35 lbs Glob. Obj.

Bottom ~~fine silt~~ and a few diatoms

Bottom temperature 5°

No. of thermometer 98233. Cor. 0

Corrected temperature 41°

Air 83 Surface 77 Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
		0		
		100		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

2500

2600

2700

2800

2900

3000

3100

3200

3300

3400

3500

3600

3700

3800

3900

4000

915717267

## SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

P. G. 52.

No. 4128 Date 15 Nov. '01  
 Lifesec Machine. // Reel. Navy  
 Turns 348 Cor. + 35 Depth 138 fms.  
 Shot or lead 35 lbs.  
 Bottom Flora. 03.  
 Bottom temperature 42  
 No. of thermometer 98232. Cor. 0  
 Corrected temperature 42  
 Air 80 Surface 77 Drift

## Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
		0		
		100		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Molotini Islet, N 68° E., true 25° 1'

K  
C  
J  
in

2500  
2600  
2700  
2800  
2900  
3000  
3100  
3200  
3300  
3400  
3500  
3600  
3700  
3800  
3900  
4000

15.0 15.0 15.0

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

S. = 61.

No. H. 4139 Date 10-25-10  
 Cutlass Machine. / Reel. 15

Turns 207 Cor. + 21 Depth 228 fms.

Shot or lead 35 lbs

Bottom 60° C.

Bottom temperature

No. of thermometer 99233. Cor. 0

Corrected temperature 48 -

Air 78 Surface 77 Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
		0		
		100		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

2500  
2600  
2700  
2800  
2900  
3000  
3100  
3200  
3300  
3400  
3500  
3600  
3700  
3800  
3900  
4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No.

Date

Machine.

Reel.

Turns

Cor. +

Depth

Shot or lead

Bottom

Bottom temperature

No. of thermometer

Corrected temperature

Air

Surface

Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
		0		
		100		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No. D 3880 Date Apr 15-02

Machine

Reel.

Turns

Cor. +

Depth

Shot or lead

Bottom

Bottom temperature

No. of thermometer

Cor.

Corrected temperature

Air

76

Surface

76

Drift

Trawl or dredge

From surface up to

Water

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
		100		8.35
		200		8.00
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

15° April

8

2500  
2600  
2700  
2800  
2900  
3000  
3100  
3200  
3300  
3400  
3500  
3600  
3700  
3800  
3900  
4000

) 15 m

## SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Clear air with ice	Incandescent, ice		
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

## REMARKS:

Catch: Much sphaerogonium; many rhizoplane falls; many ctenophores; 1 phyllosoma; very few entomostraca; 2 blue shrimps; stomatopoda; transparent shrimp; 2 young fishes.

No. 261 Date 10/1/1911  
Trawl Machine. Reel.

Turns Cor. + Depth

Shot or lead

Bottom

Bottom temperature

No. of thermometer

Corrected temperature

Air

Surface

Cor.

Drift

Trawl or dredge

Orange

seines & dynamite.

A SOUNDRING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
9.00	11-30	0		
		100		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

27 Kinds gastropods; limpets;  
gephyrean worm; hermit crabs.

2500  
 2600  
 2700  
 2800  
 2900  
 3000  
 3100  
 3200  
 3300  
 3400  
 3500  
 3600  
 3700  
 3800  
 3900  
 4000

41.  
 13.  
 365.  
 13.  
 13.  
 36

#### SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50	Cut out trd 15 min			
100	in dead gorg			
200	at 1800 fms			
300	splized at			
400	Cut 5rd 12	3	1	
500				
600	(Hig. Cut)			
700				
800	from 600 ft			
900				
1000	Caught nothing			

Very few fish obtained by explosion  
REMARKS:  
 of dynamite.  $\text{CaSO}_4$  in pools more effective - precipitate very annoying.

Fishes: petroskirtes, gobius, teuthis,  
 2 sps. kuhlia, chamogobius, muraena,  
 holocentrum, pomacentrus, labroid.  
 Holothurians, 2 sps. urchins; alpheus  
 grapsus & 2 other kinds small crabs;

P. L. 93.8

S. 60° W.

No. 3881 Date 16 J. 1902

Tucker Machine Reel.

Turns 131 Cor. + 5 Depth 136 fms

Shot or lead 26 lbs

Bottom G. R. S.

Bottom temperature 61.5

No. of thermometer 11236 Cor. 0

Corrected temperature 63.5 N.W.

Air 79 Surface 76 Drift 1° E.

Trawl or dredge 6 Chal.

## SOUNDING WIRE.

## TURNS.

## DREDGE ROPE.

## UP.

DOWN.	UP.	TURNS.	DOWN.	UP.
17.00	15.00	0	17.00	15.00
14.20	11.70	100	30.00	16.50
14.50	16.20	131	33.30	45.30
		300	39.00	40.50
		400		51.00
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		

Samples caught

2 kinds gorgonians; 2 kinds of corals; dead <sup>1000</sup> *Peltis*, *antipatharian*; starfish; sea urchins; shells.

Mokuhooniki (K) / Shallow Channel

N 30° 71. Lat 3° 10'

July.

2500  
2600  
2700  
2800  
2900  
3000  
3100  
3200  
3300  
3400  
3500  
3600  
3700  
3800  
3900  
4000

35° 186 C.

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

Break each link <sup>REMARKS:</sup> of the first 20

links, and every other link to  
the upper end of the chain, of  
40 links, all held to each length,  
in two 12 manila warps, which,  
knotted, being 24 yards each 4 feet  
long to each bunch.

No. 3783 Date 16 1,02  
 Machine 1 Reel.  
 Turns 22 Cor. + 25 Depth  
 Shot or lead 25  
 Bottom 45° 2'  
 Bottom temperature 45° 2'  
 No. of thermometer 99233 Cor. 0  
 Corrected temperature 45° 2'  
 Air 17 Surface 76 Drift  
 Trawl or dredge 9 ft

SOUNDING WIRE.			DREDGE ROPE.		
WT.	DOWN.	UP.	WT.	DOWN.	UP.
24.01	76.00	76.00	17.00	60.00	60.00
07.00	07.10	100	6.00	11.00	14.00
02.00	06.10	200	2.00	3.00	3.00
02.00	05.30	300	2.00	3.00	3.00
		400	2.00	3.00	3.00
		500	2.00	3.00	3.00
		600	2.00	3.00	3.00
		700			
		800			
		900			
		1000			
		1100			
		1200			
		1300			
		1400			
		1500			
		1600			
		1700			
		1800			
		1900			
		2000			
		2100			
		2200			
		2300			
		2400			

baumele

S

W

2500  
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2700  
2800  
2900  
3000  
3100  
3200  
3300  
3400  
3500  
3600  
3700  
3800  
3900  
4000

8/18/59

## SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

300; *promyallantois alcocki*;  
 400 *hymenoccephalus entacraeus*; *gephyrean*  
 500 worm; many *holothurians* of 2 sps.;  
 600 3 sps. Starfish; 4 sps sea urchins;  
 700 tectibranch; dentalia; several sps.  
 800 gastropods; several sps. lamellibranchs;  
 900 many prawns of 5 sps; several  
 1000 *munidia*; worms - several in tubes;  
 few crabs; *gorgonians*; *penicillidiids*;

REMARKS:

1/2 pick silicious sponges spicules; few  
 organisms.

No. 607 Date 10/16/02  
 C. P. Machine Reel.  
 Turns 250 Cor. + ? Depth 2.5 fms.  
 Shot or lead 35 lbs  
 Bottom M. Chl.  
 Bottom temperature 44°  
 No. of thermometer 98.2 Cor. 0  
 Corrected temperature 44°  
 Air 76. Surface 75. Drift  
 Trawl or dredge

SOUNDING WIRE.		TURNS	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
		0		5.35.20
51.25		100		51.15
		200		51.15
2.5	2.5	300		51.15
		400		51.15
		500	1.2.30	04.45
		600		51.05.20
		700		
		800		
		900		
Y. 386.		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

3 27

2500  
2600  
2700  
2800  
2900  
3000  
3100  
3200  
3300  
3400  
3500  
3600  
3700  
3800  
3900  
4000

1174

4600 246

## SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

Catch =

## REMARKS:

3 sps macrurus; *Scorpaena* *femigera*; *Pelicanichthys crumenalis*; many *Phromosoma*; 2 sps. urchins; 2 sps. starfish; several kinds prawns and other macrurans; 1 maloid crab; few holothurians; few ophiurans of 2 sps; *pennatulid*.

No. H. 4130 Date

Sleds Machine. / Reel.

Turns 26 Cor. + Depth 800 fms.

Shot or lead 25 lbs.

Bottom Glob. M.

Bottom temperature 44.7

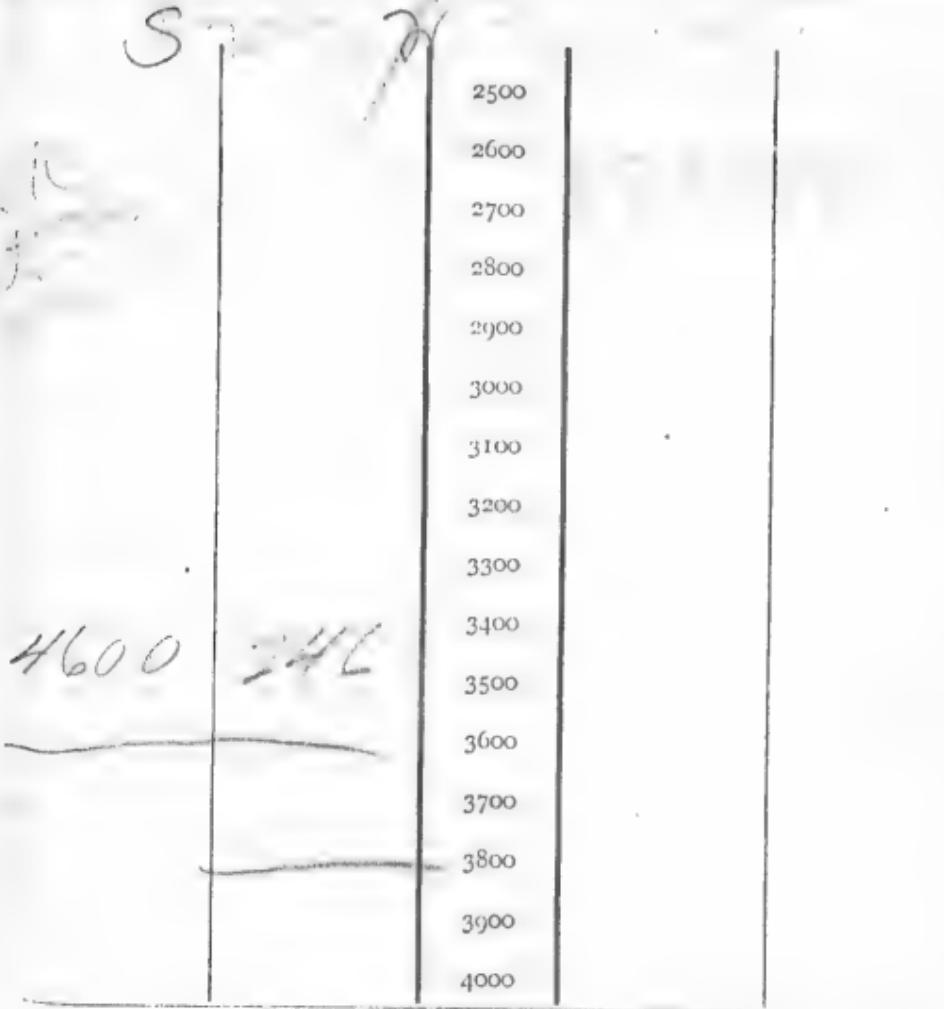
No. of thermometer 98.033 Cor. 0

Corrected temperature 44.7

Air 76 Surface 75 Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
5.29.30		0		
60.00		100		
110.00		200		
160.00		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		



SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

507. 100 fathoms Oct 18, 1902.

No. 3885 D

Date

10/18/02

Machine.

Reel.

Turns / Cor. + 167 Depth 135 fms

Shot or lead 26 ft.

Bottom 64 fms

Bottom temperature

No. of thermometer 98.5 Cor. 0

Corrected temperature

Air 72 Surface 76 Drift

Travel or dredge 2 Chain Sunk 100 fms

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
		0		
		100		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

2500  
 2600  
 2700  
 2800  
 2900  
 3000  
 3100  
 3200  
 3300  
 3400  
 3500  
 / 3600  
 3700  
 3800  
 3900  
 4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Catch =

Pycnoclavellae; 2 sps starfish;  
 3 kinds hydroids; 2 sps urchins;  
 Stony corals; Chaunax.

No. 3886 D		Date 17 <sup>th</sup> Apr. 1902
anner	Machine	Reel.
Turns 142	Cor. +	Depth 148 fms.
Shot or lead	26	
Bottom	R. P.	
Bottom temperature:	65°	
No. of thermometer	9823	Cor. 0
Corrected temperature	65°	(115.3° N)
Air 75	Surface 76	Drift 18 <sup>1/2</sup> fms.
Trawl or dredge 3 ft. hair tangles.		
SOUNDING WIRE.		DREDGE ROPE.
DOWN.	UP.	DOWN.
8:36.00	8.46.00	8.41.30
36.50	38.00	46.00
37.20	37.30	49.30
		52.10
		53.00
		400
		500
		600
		700
		800
		900
		1000
		1100
		1200
		bare =
		1300
		shells; sea
		urchin; coral fragments.
		1400
		1500
		1600
		1700
		1800
		1900
		2000
		2100
		2200
		2300
		2400
<i>This station works out of No. 1 of 3880-</i>		
<i>Tangles nearly Crab; few dead urchin; coral fragments.</i>		
<i>Surface net - "little life" - Caught = larval squillæ; large blue copepods; few other entomotricha; 2 sp. very small fishes; like shrimp.</i>		

Mokuhooniki Rk., Nolokai Channel  
N 47° 21'. true 3 4/16'

81			2500	
80.5			2600	
80.			2700	47 13.68
			2800	
			2900	
			3000	
			3100	
			3200	
			3300	
			3400	
			3500	
			3600	
			3700	
			3800	
			3900	
			4000	

#### SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50	b. sun & cloudy	8	8.5	sunny
100	breeze	8	8.5	
200	Gentle swell	8	8.5	
300				
400				
500	Dook one arm			
600	with 3 lengths			
700	+ shackled through upper belt			
800	hole to 250# shot.			
900				
1000				

#### REMARKS:

Surface net over at 8.49. 13°  
 " " ill " 9:02 " 9:08 "  
 " " over " 9:08 " 9:18 "

*No.**Date**Machine.*      *Reel.**Turns*      *Cor. +*      *Depth**Shot or lead**Bottom**Bottom temperature**No. of thermometer*      *Cor.**Corrected temperature**Air*      *Surface*      *Drift**Trawl or dredge*

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
		0		
		100		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

3 - 60

17 - 35-

Total for quartz

3 - 60

19 - 35-